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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/743,833	03/26/2001	Detlef Frank	825-00149	8823

7590

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EXAMINER

SELLERS, ROBERT E

ART UNIT

PAPER NUMBER

1732

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/743,833

Applicant(s)

FRANK, DETLEF

Examiner

Robert Sellers

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 26 March 2001.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-30 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 29 is/are allowed.
6) ☒ Claim(s) 11-28 and 30 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 21-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1. The term "conventional" in claim 21, line 2 is unclear since the parameters for a composite deemed to be within the realm of "conventional" is not revealed. The meaning of the word "electrotechnique" in claim 21, line 2 is unknown and undefined in the specification.
2. The phrase in claim 24, line 1 wherein the starting material "comprises or consists of" a dust does not concisely denote whether the claim is open to the presence of additional components. The terms "comprises" or "consists of" are legally recognized claim language either indicating the permissible presence of other materials ("comprises") or the strict limitation to only the presence of the dust ("consists of").

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 11, 14, 17, 18, 28 and 30 are rejected under 35 U.S.C. 102(a) as being anticipated by Wetzel et al. Patent No. 5,721,280.

Wetzel et al. (col. 2, lines 17-23 and 43-49) discloses a process for the decomposition of a composite containing a polyimide (col. 3, Example 1, lines 41-42) comprising breaking down the polyimide by a chemical reaction with sodium, potassium or lithium hydroxide at a temperature of 250°C (col. 3, Example 1, lines 47-48).

4. Claims 11-14, 16-18, 20, 28 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Schwartz Patent No. 5,580,905.

Schwartz (col. 3, lines 33-40) sets forth a process for the decomposition of a composite such as a polyester based with a magnetic coating (col. 1, line 22) comprising breaking down the polyester by chemical reaction with sodium or potassium hydroxide (col. 6, lines 34 and 38) in the presence of a wetting agent (col. 6, lines 58-64) at a temperature of between about 400-600°F (i.e. 204-316°C).

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-15, 17-20, 26, 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over German Patent No. 1,231,085 in view of Wetzel et al. and Schwartz.

5. The abstract of the German patent espouses a process for the removal of resins from metallic objects by immersion in a heated molten salt bath containing potassium hydroxide.

6. The temperature of the heated molten salt bath is not recited. Wetzel et al. and Schwartz are described hereinabove. It would have been obvious to heat the molten salt bath of the German patent to within the temperature of 250°C of Wetzel et al. when the resin is a polyester, or between about 204-316°C when the resin is a polyimide in order to facilitate the decomposition of the resin.

7. Claims 11-15, 20, 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent No. 70789.

The abstract of the European patent is directed to a method for decomposing tires or halogenated plastics by immersion in a molten salt bath containing one or more alkali metal hydroxides at a temperature of from 170-1200°C. Although the form the tires or halogenated plastics as a composite is not recited, it would have been obvious to decompose a composite prepared from a halogenated plastic, or a steel-belted tire composite to separate the halogenated plastic or rubber from the other components of the composite.

8. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wetzel et al., Schwartz, the German patent or the European patent as applied to the claims with respect to each of the references indicated hereinabove, and further in view of Tadauchi et al.

Tadauchi et al. (col. 4, lines 42-44) teaches the pyrolytic decomposition of a plastic in an extruder. It would have been obvious to conduct the decompositions of Wetzel et al., Schwartz, the German patent or the European patent in the extruder of Tadauchi et al. in order to heat, knead and mix the composite for a more uniform decomposition of the composite.

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9. Independent claim 29 is deemed to be allowable due to the limitation of the composite to an electrical component, circuit board or waste material emanating from the production of an electrical component or circuit board. None of the applied prior art recites the claimed decomposition process performed on particular electrical components or circuit boards. The closest prior art drawn to the decomposition of circuit boards with alkali metal hydroxides utilize temperatures outside of the claimed range of from 250-370°C (German Patent No. 4,001,897 and Japanese Patent Nos. 9-187751 and 9-271748).

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

European Patent Nos. 554,761 and 693,305 are designated as A references in the International Search Report and are hereby considered and cited.

(571) 272-1093 (Fax no. (703) 872-9306)
Monday to Friday from 9:30 to 6:00 EST

Any administrative inquiries can be obtained by accessing the Patent Application Information Retrieval (PAIR) system. Published applications are available through either private or public PAIR. Unpublished applications are available via private PAIR only. Consult <http://pair-direct.uspto.gov> or contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).



Robert Sellers
Primary Examiner
Art Unit 1712